REMARKS

In response to the Office Action mailed on August 4, 2004, claims 17, 27, 32, 36, and 41 are amended. Reconsideration and allowance of claims 17-19 and 22-41 is requested. Amended independent claims 17, 27, and 36 and the dependent claims which depend from those independent claims define a slider which is neither taught nor suggested by the newly cited prior art.

In the Office Action, claims 17-19, 27-29, 32, 36-38, and 41 were rejected under 35 U.S.C. §103(a) over Meyer et al. (U.S. Patent No. 5,991,113) in view of Albrecht et al. (U.S. Patent No. 6,344,949). Claims 22-26, 30-31, 33-35, and 39-40 were withdrawn from consideration as being drawn to a non-elected species.

As amended, independent claim 17 recites a slider having a slider body, an air bearing surface, and an interface. The interface is defined in claim 17 as:

> an interface defined on the disc opposing face of the slider body and substantially surrounding the transducing head wherein the interface displaces the transducing head vertically with respect to the slider body in response to topography of the disc to maintain head media spacing (HMS) between the transducing head and the disc at a substantially constant separation distance as the slider flies above the disc.

In the Office Action, element 130 of Meyer et al. was identified as this interface. Meyer et al. refers to element 130 as a resistance heater, or a heater element, which is formed of a material having a high temperature coefficient of thermal expansion, such as a aluminum or copper. The objective in the Meyer et al. patent is to achieve substantial uniformity in transducer flying heights among multiple sliders, despite a variance in the corresponding slider flying heights. See Meyer et al. at column 2, lines 58-63. The transducer spacing is controlled by supplying a current to heater element 130 to cause an expansion of heater element 130 and other adjacent elements. This adjusts the position of the transducer relative to the air bearing surface and thereby adjusts the separation

distance between the transducer and the data surface of the disc. See Meyer et al. at column 8, line 40-column 9, line 4.

In contrast, the present invention is concerned with maintaining constant HMS between the transducing head and the disc as the slider flies above the disc and encounters changes in surface topography of the disc caused, for example, by a microwaviness or a servo pattern in the disc. Meyer et al. neither discusses nor addresses this problem. The thermal adjustment taught by Meyer et al. provides a consistent amount of transducer protrusion with respect to the slider, but does not address fluctuations in the distance between the slider and the disc caused by the surface topography of the disc.

In the present invention, the interface allows relative movement of the transducing head vertically with respect to the slider body to maintain a substantially constant HMS between the transducing head the disc. The transducer thus is able to react to the surface topography of the disc, and in particular to the microwaviness or the servo pattern of the disc, even though the slider does not respond. As explained at page 9, lines 14-25, sliders flying over discs with a rough surface topography respond globally to changes in the surface. But, this global response is not well correlated to the local topography of the disc under the transducing head. This can result in a modulation of the HMS between the transducing head and the disc, resulting in inaccurate reading and writing of the disc. Meyer et al. does not deal with this phenomenon. Element 130 is used to obtain a desired protrusion of the transducer with respect to the slider, but does not maintain head

media spacing constant between the transducing head and the disc in response to surface topography of the disc.

Both independent claim 27 and independent claim 36, as amended, require a compliant interface that connects the primary air bearing and the secondary air bearing. Meyer et al. does not include a compliant interface. To the extent that the material forming element 130 (copper or aluminum) is less stiff than the slider body, the difference is not sufficient to meet the requirements of either claim 27 or 36. Both of these claims require that the compliant interface react to topography of the surface such that the transducing head moves vertically with respect to the primary air bearing to maintain a substantially constant head media spacing between the transducing head and the surface. In Meyer et al., element 130 does not react to surface topography to cause the transducing head to move vertically to maintain a substantially constant head media spacing (HMS) between the transducing head and the surface of the media.

Claims 17-19, 27-29, 32, 36-38, and 41 are neither taught nor suggested by Meyer et al. nor Albrecht et al. In particular, neither of Meyer et al. nor Albrecht et al. teaches or suggests the interface of claim 17 or the compliant interface of claims 27 and 36. Thus, rejection under 35 U.S.C. §103 should be withdrawn. In addition, the withdrawal of claims 22-26, 30-31, 33-35, and 39-40 as being drawn to a non-elected species should be vacated. Those claims are dependent upon

allowable claims, and are in condition for allowance. In conclusion, claims 17-19, and 22-41 are in condition for allowance. Notice of that effect is requested.

Respectfully submitted,

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